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Field Crops
Alberta
AGRICULTURE

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Varieties of Special Crops for Alberta

This publication provides information on individual varieties of special crops and indicates crop production areas within the province. Important agronomic characteristics are given in tabular form for various varieties of special crops. The production areas, based upon precipitation, soil type and length of growing season, are indicated on the map.

Yields and maturity

The tables show relative yields between available varieties. Maturity is shown on a relative basis between varieties with the actual number of days to maturity varying up to 10-14 days depending upon where the crop is grown in the province.

Inoculation

The use of an inoculant is recommended for all pulse crops. Proper inoculation can be achieved by using specific Rhizobia for the crop being grown plus the use of a sticker to ensure sufficient powder is attached to the seed.

Weed control

Weed control is very important in all special crops and reference should be made to the Alberta Agriculture publications list (available from your district agriculturist for the titles of publications on special crop production in Alberta).

Copies of this and related publications may be obtained from the Print Media Branch, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta T6H 5T6 or Alberta Agriculture's District Offices.

SPECIAL CROP VARIETY CHARACTERISTICS

Variety	Relative yield (%)	Days to maturity	Seed wt. (g/1000)	Vine length/ height (cm)	Seed color	Best adapted in areas
			LENTIL			
Eston	120	95	32	36	–	3,4 & Irrig.
Indianhead	95	106	23	50	–	1,2,3,4 & 5
Laird	100	102	68	46	–	1 & 2
Rose	118	96	48	37	–	3,4 & Irrig.

Remarks: ESTON – Persian type. Most upright growing lentil. Performs well on black soils and under irrigation. LAIRD – Chilean type. Performs better on brown soils, area one. INDIANHEAD – Recommended as a green manure crop for all areas. ROSE – red cotyledon, limited market.

			FIELD PEA			
AC Tamor	104	96	269	71	Y	3,4,5 & Irrig.
Bohatyr	125	92	257	79	Y	3,4,5 & Irrig.
Danto	130	95	275	67	G	3,4,5 & Irrig.
Express	123	97	219	76	Y	3,4,5 & Irrig.
Miko	126	96	265	89	Y	3,4,5 & Irrig.
Miranda	115	92	317	56	Y	3,4,5 & Irrig.
Patriot	117	94	209	72	Y	3,4,5 & Irrig.
Princess	104	93	184	68	G	3,4,5 & Irrig.
Radley	111	94	191	70	G	3,4,5 & Irrig.
Sirius	111	96	236	116	Maple	3,4,5 & Irrig.
Stehgolt	124	91	277	62	Y	3,4,5 & Irrig.
Tara	112	101	194	109	Y	3,4,5 & Irrig.
Tipu	103	100	206	111	Y	3,4,5 & Irrig.
Titan	103	103	230	124	Y	3 & Irrig.
Topper	117	100	276	111	Y	3,4,5 & Irrig.
Trapper	100	101	129	113	Y	3 & Irrig.
Trump	110	95	244	66	G	3,4,5 & Irrig.
Victoria	117	96	168	99	Y	3,4,5 & Irrig.
Yellowhead	114	102	246	110	Y	3 & Irrig.
			FABABEAN			
Aladin	96	120	430	102	–	4 & Irrig.
Diana	97	118	384	94	–	4 & Irrig.
Encore	102	120	381	96	–	4 & Irrig.
Herz Freya	94	118	412	100	–	4 & Irrig.
Orion	95	106	350	80	–	4,5 & Irrig.
Outlook	100	118	366	96	–	4 & Irrig.
Pegasus	109	120	395	100	–	4 & Irrig.

Remarks: ORION – Best adapted to the Parkland.

			BUCKWHEAT			
Mancan	100	75	31	111	–	3,4 & 5
Manor	108	75	29.5	109	–	3,4 & 5

Remarks: MANCAN and MANOR – most recently licensed Canadian varieties. Large dark colored seeds. Recommended for production as dictated by present markets. Buckwheat is a frost susceptible early maturing crop, therefore, it should be seeded approximately June 15-20 in all production areas.

				CANARYSEED			
Elias	115	105-110	7.3	100	–	1,2,3,4,5 & Irrig.	where season and
Keet	100	105-110	7.3	100	–	1,2,3,4,5 & Irrig.	moisture permit

SAFFLOWER

Variety	Relative yield (%)	Days to maturity	Sclerotinia head rot (%)	Height (cm)	Test weight (kg/hl)	Seed weight (g/1000)	Oil (%)
Saffire	100	128	5	55	53	36	34
AC Stirling	122	133	12	56	52	37	37

Remarks: A.C. Stirling is a dual purpose variety. The shiny white seed coat and low oil levels make Saffire suitable mainly for the birdseed market.

MUSTARD

Variety	Type	Relative yield (%)	Days to maturity	Best adapted in areas
Cutlass	Oriental	100	96	1,2,3 & Irrig.
Domo	Oriental	99	96	1,2,3 & Irrig.
Lethbridge 22A	Oriental	92	96	1,2,3 & Irrig.
Gisilba	Yellow	70	99	1,2,3 & Irrig.
Kirby	Yellow	73	98	1,2,3 & Irrig.
Ochre	Yellow	70	99	1,2,3 & Irrig.
Tilney	Yellow	73	101	1,2,3 & Irrig.
Common Brown	Brown	95	96	1,2,3 & Irrig.

DRYBEAN

Variety	Type	Relative yield (%)**	Relative maturity***	Seed size (g/1000)	Harvest index (%)
Seafarer	Navy	61	-4	195	33
Seaforth	Navy	58	0	188	29
Upland	Navy	80	+1	189	48
Fiesta	Pinto	96	-2	407	53
Othello	Pinto	107	-4	374	55
Topaz	Pinto	100	-8	363	57
UI 111	Pinto	100	0	363	35
410 *	Pinto	96	+1.5	323	57
NW 63	Red Mexican	106	+1	332	44
UI 36	Red Mexican	97	+1	338	47
US 1140	Great Northern	107	-2	327	40
Viva	Pink	113	-4	272	40

* Interim registration in 1991. ** As a percentage of UI 111. Average Yield of UI 111 = 3109 kg/ha.
*** +/- days compared to UI 111. Average days to maturity of UI 111 = 112.

SUNFLOWER (CONFECTIONERY)

Hybrid/variety	Relative yield (%)*	Relative maturity**	% Large seed***
D131	100	0	53.1
D151	101	-1.0	55.0
IS 8004	112	-1.8	69.4
Royal Hybrid 2141	97	-1.0	42.2
Sigco 954	94	-1.6	68.7
Sigco 964	95	-3.2	54.6
Sigco 974	103	0	77.4

*As a percentage of D131. Average yield of D131 = 2583 kg/ha. ** +/- days relative to D131. Average days to maturity of D131 = 129.
*** percentage of seeds retained by 20/64 screen.

CORN

Hybrids Recommended For Grain

Company	Hybrid	Number of locations tested	Grain yield (bu/ac)[1]	Grain moisture (%)	Test weight (lb/bu)	Date of anthesis
Funk	G4017	23	95.2	25.5	54.6	July 25
Hyland	EURCS LG3	30	92.8	26.7	55.8	July 21
Hyland	HL3195	11	96.0	24.3	54.3	July 24
Northrup King	N0565	14	99.4	25.6	53.4	July 24
Pickseed	2435	27	97.4	23.6	55.5	July 21
Pickseed	52-207	6	96.0	22.5	56.1	July 22
Pioneer	3995	30	94.9	27.0	54.8	July 20
Pioneer	3982	7	106.3	26.5	55.2	July 20
Pioneer	3969	20	105.6	28.3	52.0	July 23
Pioneer	3979	19	112.7	28.8	51.1	July 23
Pride	K020	16	98.3	20.1	56.5	July 19
Pride	K030	16	99.8	28.4	54.7	July 20
Pride	K131	7	108.9	28.4	56.3	July 22

[1] Yield calculated at 56.0 lb/bu.

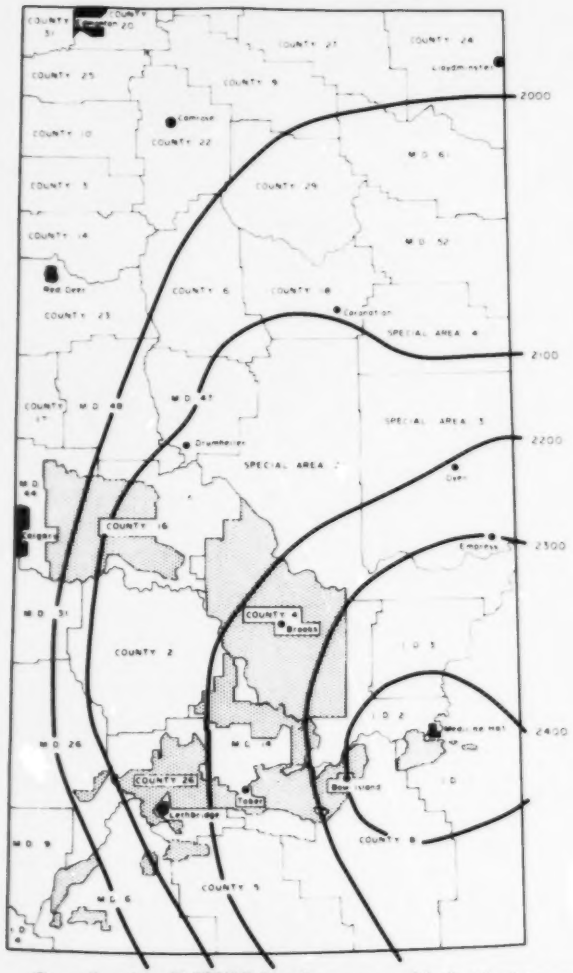
Performance of corn hybrids grown for grain at Lethbridge, Brooks, Bow Island and Medicine Hat in 1983-91.

Hybrids Recommended for Silage

Company	Hybrid	Number of locations tested	Yield (t/ac dry)	Whole plant moisture (%)	Protein (%)	Fibre (ADF)	Date of anthesis
Crookham	IDH345	20	6.8	71.4	7.2	30.0	July 28
Crookham	IDH218	21	7.0	70.7	7.5	29.9	July 29
Dekalb	DK291	19	6.4	66.6	7.2	28.8	July 25
Dekalb	DK331	7	6.8	70.6	7.1	31.4	July 30
Funk	G4066	32	6.9	68.7	7.2	31.2	July 26
Funk	G4029	21	7.2	70.4	6.8	31.0	July 28
Funk	G4018	21	7.6	73.5	7.0	30.8	July 31
Hyland	HL2260	21	7.6	68.7	7.3	30.5	July 29
Hyland	HL2428	25	7.5	70.4	7.4	30.9	July 29
Northrup King	N1110	21	6.9	67.0	6.8	27.4	July 27
Pioneer	3979	21	6.8	67.2	6.5	27.7	July 23
Pioneer	3969	27	6.7	64.0	6.7	29.6	July 24
Pioneer	3921	7	7.8	68.4	6.8	30.9	July 26
Pioneer	3954	14	6.9	67.9	6.7	30.2	July 26
Pioneer	3957	31	7.2	68.8	6.5	30.6	July 27
Pride	K148	18	7.0	68.6	7.1	28.6	July 25
Pride	K1114	23	6.7	68.6	7.4	30.0	July 27
Pride	K127	14	6.6	66.8	6.5	30.6	July 28
Sigco	8507	14	6.5	66.3	7.3	26.9	July 22

Performance of corn hybrids grown for silage at Lethbridge, Brooks, Bow Island and Medicine Hat in 1983-91.

Corn Heat Units (CHU's)



Corn heat unit (CHU) isotherms and irrigated areas (shaded) of the southeast portion of Alberta.

– Grain corn production is best adapted to areas of greater than 2300 CHU's.

– Silage corn production is best adapted to areas of greater than 2100 CHU's.

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